Application No. 10/092,300

## IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with <u>strikethrough</u>. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 10, 38, 40 and 41 and CANCEL claims 15-23, 32, 34 and 35 without prejudice or disclaimer in accordance with the following:

1. **(Currently Amended)** A positive active material composition for a rechargeable lithium battery, comprising:

a positive active material comprising at least one lithiated compound; and at least onean amorphous additive compound, uniformly-mixed throughout the entire positive active material, selected from the groupsaid amorphous additive compound consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate,

wherein said at least one-amorphous additive compound comprises an amount at or between 0.1 weight % and 0.3 weight % based on the weight of the positive active material composition and

wherein the thermal-absorbent element is an element selected from the group consisting of Mg, Al, Co, K, Na, Ca, Si, Ti, Sn, V, Ge, Ga, As, and Zr, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:

$Li_xMn_{1-y}M_yA_2$	(1)
$\text{Li}_{x}\text{Mn}_{1-y}\text{M}_{y}\text{O}_{2-z}\text{X}_{z}$	(2)
$\text{Li}_{x}\text{Mn}_{2}\text{O}_{4\text{-}z}\text{X}_{z}$	(3)
$\text{Li}_x Mn_{2-y} M_y A_4$	(4)
$Li_xCo_{1-y}M_yA_2$	(5)
$\text{Li}_{x}\text{Co}_{1-y}\text{M}_{y} \text{ O}_{2-z}\text{X}_{z}$	(6)
$\text{Li}_x \text{Ni}_{1-y} \text{M}_y \text{A}_2$	(7)
$\text{Li}_{x}\text{Ni}_{1-y}\text{M}_{y}\text{O}_{2-z}\text{X}_{z}$	(8)

 $\begin{array}{lll} Li_xNi_{1-y}Co_yO_{2-z}X_z & (9) \\ Li_xNi_{1-y-z}Co_yM_zA_\alpha & (10) \\ Li_xNi_{1-y-z}Co_yM_zO_{2-\alpha}X_\alpha & (11) \\ Li_xNi_{1-y-z}Mn_yM_zA_\alpha & (12) \\ Li_xNi_{1-y-z}Mn_yM_zO_{2-\alpha}X_\alpha & (13) \end{array}$ 

wherein,  $0.95 \le x \le 1.1$ ,  $0 \le y \le 0.5$ ,  $0 \le z \le 0.5$ ,  $0 \le \alpha \le 2$ , M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements, A is selected from the group consisting of O, F, S, and P, and X is selected from the group consisting of F, S, and P.

## 2-9. (Cancelled)

10. **(Currently Amended)** A positive active material composition for a rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and at least one an additive compound distributed throughout the entire positive active material, said additive compound and selected from the group-consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxyhydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate, wherein the thermal-absorbent element is one of amorphous Al and crystalline B, and wherein said at least one additive compound comprises an amount at or between 0.1 weight % and 0.3 weight % based on the weight of the positive active material composition, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:

 $Li_xMn_{1-y}M_yA_2$ (1)  $Li_xMn_{1-v}M_vO_{2-z}X_z$ (2)  $Li_xMn_2O_{4-7}X_7$ (3) $Li_xMn_{2-y}M_vA_4$ (4)  $Li_xCo_{1-y}M_yA_2$ (5)  $Li_xCo_{1-v}M_v O_{2-z}X_z$ (6)  $Li_xNi_{1-v}M_vA_2$ (7)  $Li_xNi_{1-v}M_vO_{2-z}X_z$ (8)  $Li_xNi_{1-v}Co_vO_{2-z}X_z$ (9)

$$\text{Li}_{x}\text{Ni}_{1-y-z}\text{Co}_{y}\text{M}_{z}\text{A}_{\alpha}$$
 (10)  
 $\text{Li}_{x}\text{Ni}_{1-y-z}\text{Co}_{y}\text{M}_{z}\text{O}_{2-\alpha}\text{X}_{\alpha}$  (11)

$$Li_xNi_{1-y-z}Mn_yM_zA_\alpha$$
 (12)

$$Li_xNi_{1-y-z}Mn_yM_zO_{2-\alpha}X_\alpha$$
 (13)

wherein,

$$0.95 \le x \le 1.1, \ 0 \le y \le 0.5, \ 0 \le z \le 0.5, \ 0 \le \alpha \le 2,$$

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and X is selected from the group consisting of F, S, and P.

## 11 - 37. (Cancelled)

38. **(Currently Amended)** The positive active material composition according to claim 1, wherein the positive active material composition is formed by combining a powder containing the positive active material with a powder containing the at least one additive compound in a solvent to form a positive active material slurry to be coated on a current collector of an electrode of the lithium battery.

## 39. (Cancelled)

40. **(Currently Amended)** A positive active material composition for a rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and an additive compound distributed throughout the entire-positive active material, and selected from the group-said additive compound consisting of a thermal-absorbent element-included hydroxycarbonate, wherein the thermal-absorbent element included hydroxycarbonate is an amorphous Al-included hydroxycarbonate, and wherein said thermal-absorbent element-included hydroxycarbonate comprises an amount at or between 0.1 weight % and 0.3 weight % based on the weight of the positive active material composition.

41. (Currently Amended) A positive active material composition for a

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rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and an additive compound mixed throughout the entire-positive active material, and selected from the group-said additive compound consisting of a thermal-absorbent element-included hydroxycarbonate, wherein the thermal-absorbent element included hydroxycarbonate is a crystalline B-included hydroxycarbonate, and wherein said thermal-absorbent element-included hydroxycarbonate comprises an amount at or between 0.1 weight % and 0.3 weight % based on the weight of the positive active material composition, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:

 $0.95 \le x \le 1.1$ ,  $0 \le y \le 0.5$ ,  $0 \le z \le 0.5$ ,  $0 \le \alpha \le 2$ ,

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and X is selected from the group consisting of F, S, and P.